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[6450-01-P]

**DEPARTMENT OF ENERGY**

[Case Number 2018-010, EERE-2017-BT-WAV-0043]

**Energy Conservation Program: Extension of Waiver to Apple Inc. from the Department of Energy External Power Supply Test Procedure**

**AGENCY:** Office of Energy Efficiency and Renewable Energy, Department of Energy.

**ACTION:** Notice of extension of waiver.

**SUMMARY:** The U.S. Department of Energy (“DOE”) is granting a waiver extension (Case No. 2018-010) to Apple Inc. (“Apple”) to waive certain requirements of the DOE external power supply test procedure for determining the energy efficiency of the Apple brand external power supply basic models A1947 and A1720. Apple is required to test and rate these basic models in accordance with the alternate test procedure specified.

**DATES:** The Extension of Waiver is effective on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. The Extension of Waiver will terminate upon the compliance date of any future amendment to the test procedure for external power supplies located in 10 CFR part 430, subpart B, appendix Z that addresses the issues presented in this waiver. At such time, Apple must use the relevant test procedure for the specified basic models of external power supplies for any testing to demonstrate compliance with standards, and any other representations of energy use.

**FOR FURTHER INFORMATION CONTACT:**

Ms. Lucy deButts, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, EE-5B, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. E-mail: *AS\_Waiver\_Requests@ee.doe.gov*.

Mr. Michael Kido, U.S. Department of Energy, Office of the General Counsel, Mail Stop GC-33, Forrestal Building, 1000 Independence Avenue SW., Washington, DC 20585-0103. Telephone: (202) 586-8145. Email: *Michael.Kido@hq.doe.gov*.

#### **SUPPLEMENTARY INFORMATION:**

In accordance with Title 10 of the Code of Federal Regulations (10 CFR 430.27(g)), DOE gives notice of the issuance of an Extension of Waiver as set forth below. The Extension of Waiver extends the Decision and Order granted to Apple on March 16, 2018 (83 FR 11738, “March 2018 Decision and Order”) to include Apple brand basic models A1947 and A1720, as requested by Apple on October 30, 2018.<sup>1</sup> Apple must test and rate the specifically identified external power supply basic models in accordance with the alternate test procedure specified in the March 2018 Decision and Order. Apple’s representations concerning the energy efficiency of the specified basic models must be based on testing according to the provisions and restrictions in the alternate test procedure set forth in the March 2018 Decision and Order, and the representations must fairly disclose the test results. Distributors, retailers, and private


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<sup>1</sup> Apple’s request is available at <https://www.regulations.gov/document?D=EERE-2017-BT-WAV-0043-0013>.

labelers are held to the same requirements when making representations regarding the energy efficiency of these products. (42 U.S.C. 6293(c))

DOE makes decisions on waiver extensions for only those basic models specifically set out in the request, not future models that may be manufactured by the petitioner. Apple may submit a new or amended petition for waiver and request for grant of interim waiver, as appropriate, for additional basic models of external power supplies. Alternatively, if appropriate, Apple may request that DOE extend the scope of a waiver to include additional basic models employing the same technology as the basic model(s) set forth in the original petition consistent with 10 CFR 430.27(g).

Signed in Washington, DC, on November 15, 2018.

  
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Kathleen B. Hogan, Ph.D.  
Deputy Assistant Secretary for Energy Efficiency  
Energy Efficiency and Renewable Energy

**Case Number 2018-010**  
**Extension of Waiver**

**I. Background and Authority**

The Energy Policy and Conservation Act of 1975, as amended (“EPCA”)<sup>1</sup> among other things, authorizes DOE to regulate the energy efficiency of a number of consumer products and industrial equipment. (42 U.S.C. 6291–6317) Title III, Part B<sup>2</sup> of EPCA established the Energy Conservation Program for Consumer Products Other Than Automobiles, which sets forth a variety of provisions designed to improve energy efficiency for certain types of consumer products. These products include external power supplies (“EPSs”), the focus of this extension. (42 U.S.C. 6291(36); 42 U.S.C. 6295(u)).

Under EPCA, DOE’s energy conservation program consists essentially of four parts: (1) testing, (2) labeling, (3) Federal energy conservation standards, and (4) certification and enforcement procedures. Relevant provisions of EPCA include definitions (42 U.S.C. 6291), energy conservation standards (42 U.S.C. 6295), test procedures (42 U.S.C. 6293), labeling provisions (42 U.S.C. 6294), and the authority to require information and reports from manufacturers. (42 U.S.C. 6296)

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<sup>1</sup> All references to EPCA in this document refer to the statute as amended through the EPS Improvement Act of 2017, Public Law 115-115 (January 12, 2018).

<sup>2</sup> For editorial reasons, upon codification in the U.S. Code, Part B was redesignated as Part A.

The Federal testing requirements consist of test procedures that manufacturers of covered products must use as the basis for: (1) certifying to DOE that their products comply with the applicable energy conservation standards adopted pursuant to EPCA (42 U.S.C. 6295(s)), and (2) making representations about the efficiency of those products (42 U.S.C. 6293(c)). Similarly, DOE must use these test procedures to determine whether the product complies with relevant standards promulgated under EPCA. (42 U.S.C. 6295(s))

Under 42 U.S.C. 6293, EPCA sets forth the criteria and procedures DOE is required to follow when prescribing or amending test procedures for covered products. EPCA requires that any test procedures prescribed or amended under this section must be reasonably designed to produce test results which reflect the energy efficiency, energy use or estimated annual operating cost of a covered product during a representative average use cycle or period of use and requires that test procedures not be unduly burdensome to conduct. (42 U.S.C. 6293(b)(3)) The test procedure for external power supplies is contained in 10 CFR part 430, subpart B, appendix Z, “*Uniform Test Method for Measuring the Energy Consumption of External Power Supplies*” (“Appendix Z”).

Under 10 CFR 430.27, any interested person may submit a petition for waiver from DOE’s test procedure requirements. DOE will grant a waiver from the test procedure requirements if DOE determines either that the basic model for which the waiver was requested contains a design characteristic that prevents testing of the basic model according to the

prescribed test procedures, or that the prescribed test procedures evaluate the basic model in a manner so unrepresentative of its true energy or water consumption characteristics as to provide materially inaccurate comparative data. 10 CFR 430.27(f)(2). DOE may grant the waiver subject to conditions, including adherence to alternate test procedures. *Id.*

A petitioner may request that DOE extend the scope of a waiver or an interim waiver to include additional basic models employing the same technology as the basic model(s) set forth in the original petition. 10 CFR 430.27(g). DOE will publish any such extension in the *Federal Register*. *Id.*

## **II. Request for an Extension of Waiver: Assertions and Determinations**

On March 16, 2018, DOE issued a Decision and Order in Case Number EPS-001 granting Apple a waiver to test its Apple brand basic models A1718, A1719, and A1540 using an alternate test procedure. 83 FR 11738 (“March 2018 Decision and Order”). Apple stated that the specified basic models meet the provisions of the International Electrotechnical Commission’s “Universal serial bus interfaces for data and power - Part 1-2: Common components - USB Power Delivery” (“IEC 62680-1-2:2017”) specification. The IEC specification describes the particular architecture, protocols, power supply behavior, connectors, and cabling necessary for managing power delivery over a universal serial bus (“USB”) connection at power levels of up to 100 watts (“W”). The purpose behind this specification is to help provide a standardized approach for power supply and peripheral developers to ensure

backward compatibility while retaining product design and marketing flexibility. See generally, IEC 62680–1–2:2017 (Abstract) (describing the standard’s general provisions and purpose).

In Apple’s view, applying the DOE test procedure to the adaptive EPS basic models identified in its petition would yield results that would be unrepresentative of the active-mode efficiency of those products. The DOE test procedure requires that the average active-mode efficiency for adaptive EPSs<sup>3</sup> be measured by testing the unit twice—once at the highest achievable output voltage (“V”) and once at the lowest. The test procedure requires that active-mode efficiency be measured at four loading conditions relative to the nameplate output current of the EPS. See generally 10 CFR 430.23(bb) and Appendix Z. The lowest achievable output voltage supported by the IEC 62680-1-2:2017 specification is 5V and the nameplate current at this voltage output is 3 amps (“A”), resulting in a power output of 15W. Apple contended that while the IEC 62680-1-2:2017 specification requires the tested EPS to support this power output, the 15W at 5V condition will be rarely used and only for brief periods of time. Accordingly, Apple asserted that the DOE test procedure’s measurement of efficiency at this power level is unrepresentative of the true energy consumption of the EPSs subject to the initial waiver request.

Based on the information provided by Apple, DOE determined that the current test procedure at Appendix Z would evaluate the adaptive EPS basic models specified in the March 2018 Decision and Order in a manner so unrepresentative of their true energy consumption

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<sup>3</sup> An adaptive EPS is an EPS that can alter its output voltage during active-mode based on an established digital communication protocol with the end-use application without user-generated action. 10 CFR 430.2.

characteristics as to provide materially inaccurate comparative data. 83 FR 11738, 11739. The March 2018 Decision and Order specifies that Apple test and rate the subject basic models such that the 100% nameplate loading condition when testing at the lowest achievable output voltage is 2A (which corresponds to an output power of 10 watts). 83 FR 11738, 11740. The 75%, 50%, and 25% loading conditions shall be scaled accordingly and the nameplate output power of such an EPS, at the lowest output voltage, shall be equal to 10 watts. *Id.*

On October 10, 2018, DOE granted a request from Apple to extend the waiver it received in Case Number EPS-001 to Apple brand basic model A1882. 83 FR 50905 (Case Number 2018-005). DOE determined that basis model A1882 employs the same technology as the models covered by Case Number EPS-001.

On October 30, 2018, Apple submitted a request to extend again the scope of the waiver it received in Case Number EPS-001 to the Apple brand basic models A1947 and A1720. Apple stated that these basic models employ the same technology as the models covered by the existing waiver.

DOE has reviewed Apple's waiver extension request and determined that the adaptive EPS basic models identified in Apple's request incorporate the same design characteristics as those basic models covered under the waiver in Case Number EPS-001 such that the test procedure evaluates that basic model in a manner that is unrepresentative of its actual energy use.

DOE also determined that the alternate procedure specified in Case Number EPS-001 will allow for the accurate measurement of the energy use of the external power supply basic model identified by Apple in its waiver extension request.

### **III. Order**

After careful consideration of all the material submitted by Apple in this matter, it is **ORDERED** that:

(1) Apple must, as of the date of publication of this Extension of Waiver in the *Federal Register*, test and rate the following basic models as set forth in paragraph (2) of this Extension of Waiver:

A1947 and A1720

(2) The alternate test procedure for the Apple brand basic models referenced in paragraph (1) of this section is the test procedure for EPSs prescribed by DOE at 10 CFR part 430, subpart B, appendix Z, except that under section 4(a)(i)(E) and Table 1 of Appendix Z, the adaptive EPSs must be tested such that when testing at the lowest achievable output voltage (*i.e.*, 5V), the Nameplate Output Current shall be 2A (which corresponds to an output power of 10W at the 100% loading condition). The 75%, 50%, and 25% loading conditions shall be scaled

accordingly and the nameplate output power of such an EPS, at the lowest output voltage, shall be equal to 10W.

(3) *Representations.* Apple may not make representations about the efficiency of the basic models referenced in paragraph (1) of this section for compliance, marketing, or other purposes unless the basic model has been tested in accordance with the provisions set forth above and such representations fairly disclose the results of such testing.


(4) This Extension of Waiver shall remain in effect consistent with the provisions of 10 CFR 430.27.

(5) This Extension of Waiver is issued on the condition that the statements, representations, and documents provided by Apple are valid. If Apple makes any modifications to the controls or configurations of these basic models, the waiver will no longer be valid and Apple will either be required to use the current Federal test method or submit a new application for a test procedure waiver. DOE may rescind or modify this Extension of Waiver at any time if it determines the factual basis underlying the petition for Extension of Waiver is incorrect, or the results from the alternate test procedure are unrepresentative of the basic model's true energy consumption characteristics. 10 CFR 430.27(k)(1). Likewise, Apple may request that DOE rescind or modify the Extension of Waiver if Apple discovers an error in the information

provided to DOE as part of its petition, determines that the waiver is no longer needed, or for other appropriate reasons. 10 CFR 430.27(k)(2).

(6) Granting of this Extension of Waiver does not release Apple from the certification requirements set forth at 10 CFR part 429.

Signed in Washington, DC, on November 15, 2018.



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Energy Efficiency and Renewable Energy